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**Imperfect but Hard Competition: the Portuguese Banking Sector in the Golden
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Introduction

The institutional environment of Portuguese banking during the Golden Age years of economic growth (1950-1973) was criticized in many instances, at the time and in recent literature. Direct observers of the period, such as Wallich (1951) and Pereira (1953, 1956a, and 1956b), and historians including Sérgio (1990) and Valério (2010) have stressed two main aspects of that environment: excessive protection, allowing banks to obtain high rents, something that would have deterred them from competing and innovating; and excessive concentration of their activity on short-term commercial paper, thus preventing them from contributing effectively to finance growth.

Such supposed features of the banking system seem to be in contradiction, however, with the high growth rates of the years 1950 to 1973, the best in terms of economic growth in all of Portugal's history (cf. Amaral, 2010). The apparent contradiction is not limited to Portugal, in fact, as rapid growth in many economies in that period occurred within a framework of heavily regulated financial systems. This is what Monnet (2012) has appropriately called the “financial paradox” of the Golden Age. It is difficult to reconcile the idea that a relatively free and competitive financial system is essential to finance investment at efficient prices (e.g, Freixas and Rochet, 1997, Guzmán, 2000, or Barth *et al.*, 2001) with the fast growth seen during the Golden Age.

The “paradox” only exists, of course, if we believe that an environment of competition is the one that assures the most efficient outcome in terms of investment and capital accumulation. But some authors have questioned this idea, based on the notion that banking is an activity with special features. Petersen and Rajan (1995), for

instance, have suggested that banks with more market power engage more easily in “relationship lending”, something that would lead them to supply more credit to young firms. Since young firms are riskier than established ones, banks in a highly competitive environment would tend to increase interest rates in order to accommodate such higher risk, whereas banks with market power would compensate for the risk by sharing in the future profits of those firms. By allowing interest rates to remain low, they would thus increase the amount of credit available for the economy. Cetorelli and Peretto (2000) provide another example in favour of imperfect competition in banking. According to them, a smaller number of banks would screen the quality of their potential clients more completely than would a larger number, and would thus be able to better choose the best borrowers. As a result of this greater confidence, they would lend more, increasing capital accumulation and growth (for a more complete discussion of these and other related topics, see Northcott, 2004).

These are works in economic theory. But when we turn to economic history, we find few authors who have sought to deal directly with the “financial paradox” of the Golden Age. Such important works as AAVV (1994) and Cassis *et al.* (1995) make a thorough description of the various national legal frameworks but do not assess the impact of those frameworks on the actual behavior of the agents in the market or on the growth performance of the various economies. Only a few more recent works have sought to go beyond such limited analyses. Some have followed the path of showing how the institutional environment of financial repression was not enough to fully curtail competition: Battilossi (2000), for instance, demonstrated how the increasing openness of western financial systems during the 1960s led to greater competition between banks at both the national and international levels; Capie and Billings (2004) advanced “evidence of competition in English commercial banking between 1920 and 1970”,

despite the formal and informal mechanisms in place to limit it; and Pueyo (2003) did the same for Spain between 1922 and 1995.

Other works have followed a different path, namely that of suggesting that financial repression was ultimately irrelevant for growth. Some countries would provide clear examples of how it was possible to find means of financing investment that were independent of the existence of a more or less competitive financial system. Wyplosz (1999) pays particular attention to the cases of Belgium, France, and Italy. In Belgium, with credit ceilings in place and price competition almost forbidden, banks tried to match the demand for credit with a vast increase of the branch network, setting the country apart in international comparisons in this respect. In France, with the largest banks nationalized, restrictions should have been extremely high. But Wyplosz tells us of the chain connection through which banks obtained subsidized funding from specialized public institutions, then using those funds for investment at very low rates (even if in ventures favoured by the Government). This, together with a lax monetary policy, allowed the economy to have abundant funds for growth. In Italy, despite public ownership of most banks, the system worked with very few restrictions. Both Quenouëlle-Corre (2005) and Monnet (2012) also stress the positive effects of the complex system existing in France.

As we show in this paper, Portugal is an interesting case in the international perspective. As in the rest of the western world, Portugal's banks were very tightly regulated, although in some respects less stringently so. For instance, Portuguese legislation never imposed the total separation between commercial and investment banking, never nationalized (fully or substantially) the banking sector, and never forced banks to keep a certain amount of public bonds in their portfolio. The legal framework

was thus very restrictive but at the same time left a series of loopholes open, and banks used them in order to circumvent its restraints and compete with each other.

The signs of competition were various. We present them in this work in an essentially descriptive way. Much along the lines of Capie and Billings (2004), we provide “evidence” of competition, leaving for some future work a formal test of the presence of that competition and the degree to which it existed. This approach is justified by the lack of basic works presenting the main facts of the history of Portuguese commercial banks in this period. We make a case that competition resides at the origin of the modernization of Portuguese banking, mostly in two dimensions: the growth of time deposits and geographical expansion. The fact that this represented only some form of imperfect competition does not mean that it was not an integral part of the behavior of Portuguese banks. In order to compare with other western countries, we provide some benchmarks. Despite the difficulties involved in these comparisons, due to many national specificities, we believe that the data presented are enough at least to show that the indicators for Portuguese banks did not differ greatly from those of their counterparts in other countries.

The remainder of this paper is as follows. Section 1 presents the main features of the monetary regime and the banking legislation, stressing the very tight rules in place, designed to hinder competition. Section 2 briefly describes the Portuguese banking system between 1950 and 1973, with special attention to the degree of concentration in the market and the behavior of the seven most important banks. Section 3 presents the evidence gathered for those seven banks regarding cash ratios, interest rates, deposits, branching, capital ratios, and profitability.

1. Fiscal policy, monetary policy, and banking regulation

1.1 Fiscal and monetary policy

The Golden Age years of economic growth in Portugal coincided with an authoritarian regime lasting for 41 years (1933 to 1974). The beginning of the regime came at the end of a long sequence of stabilization measures that had started in 1922. The goal of these measures was to solve the public finance and monetary issues stemming from World War I and its aftermath. World War I created an extraordinarily difficult situation for the country's public accounts, leading to persistent budget deficits, growing public debt, and quasi-hyperinflation. These were countered through a series of fiscal and monetary reforms in 1922, 1924, 1929, and 1931, together constituting a stabilization programme that was able to re-balance the budget and halt inflation. Their success can be measured by the ability of the Government to take the *escudo* back to the gold-exchange standard in 1931 (Valério, 1984, Santos, 1994, Carvalho, 2000, and Silva and Amaral, 2011). Even if the return was short-lived (as barely six months later Portugal abandoned the system again), this was not the result of renewed fiscal and monetary imbalance - quite the contrary: Portugal simply followed Britain when sterling was devalued and its convertibility suspended. But even after doing this, Portuguese authorities continued to follow a rule that sought to emulate the conditions of the gold standard (Valério, 1984, and Silva and Amaral, 2011).

Crucial for the adoption of this rule were the principles of fiscal balance and low inflation to which the *Estado Novo* adhered quite closely. Very rarely did the Government present an unbalanced budget during this long political regime, something that was essential for the neutral monetary policy required by Gold Standard membership. From 1931 onward the monetary base was indexed to the position of the balance of payments, more specifically to the availability of foreign currency and gold

as reserves at the Bank of Portugal. In 1946, following a bout of capital flight, the Government established a money emission regime in which the currency issued by the Bank of Portugal should be covered by reserves of gold and foreign currency in a proportion of 50% (half in gold). This was the rule prevailing from 1950 to 1973 (Amaral, 2003).

This policy was important for banks (and the economy) for two main reasons. First, banks were not used to finance budget deficits and public debt, as in many other countries. In Belgium, France, and Italy, where fiscal imbalance was the norm, banks were forced to hold certain proportions of public bonds in their portfolios (Wyplosz, 1999). Second, it had the potential to influence almost directly the amount of money received as deposits by banks: the expansion or contraction of money emission according to the reserves of the Bank of Portugal, in turn determined by the balance of payments, should be the main cause of expansion or contraction of deposits in banks. Doubts have been raised over the actual adherence of the Bank of Portugal to the rule (Sérgio, 1990). But even if there was some breach of the principle, there is no doubt that banks had considerable opportunities to expand their activity, as Portugal persistently maintained a positive international payments position.

1.2 Banking regulation

The financial problems resulting from World War I had a very serious impact on commercial banks. Attempting to profit from the speculative environment generated by rising public debt and monetary indiscipline, many banks sprouted until 1925, but almost as many failed, sometimes after only a few months of activity. To the 23 joint-stock banks existing in 1914, 17 new ones appeared by 1925, while 16 failed (Reis,

1994, see also Valério, 2006). The government sought to tame this hectic activity with a new banking law in 1925.

The new law was quite similar to those then in place in the rest of the Western world. As did Portugal, and for similar reasons, most countries implemented quite restrictive legislation (a summary for various countries can be found in AAVV, 1994, and Cassis *et al.*, 1995). The new rules in most countries called for a) the introduction of the principle of discretionary governmental authorization for the opening of banks, b) high capital requirements, c) liquidity requirements, and d) the establishment of interest rates determined by law. In most countries there was also an attempt to separate the investment and commercial activities of banks, as commercial banks in general had assumed a “universal” nature since the nineteenth century and had, thus, increased the interest and liquidity risks. The Portuguese legislation included all these features, but never went so far as totally forbidding commercial banks from engaging in investment, as in the US or Belgium; and never went so far either as to fully nationalize the banking sector (as in Italy in the 1920s or in Austria in 1946) or even a large part of it (as in France or Germany in 1945).

In 1950 the law in place was still Decree 10,634, from 20 March 1925. The law was based on a series of prudential rules. It imposed high capital requirements for the creation of new banks and for those already functioning (500,000 gold-*escudos* for incorporated banks and 250,000 gold-*escudos* for non-incorporated banks opening or functioning in Lisbon and Porto; 200,000 and 100,000, respectively, for those opening or functioning outside these two cities). The main purpose of the legislation was to prevent commercial banks from engaging in long-term financing and restrict them to effective “commercial” activity (collecting deposits and short-term lending). Special attention was devoted to cash reserves. Both incorporated and non-incorporated banks

were required to keep cash reserves equal to at least 20% of demand deposits. The remaining 80% had to be backed by credit instruments of no more than three months' maturity. Banks were also forbidden to grant credit above 10% of the bank's own capital to any individual or firm. This would later be complemented with a further rule coming from Law 1,894, of 11 April 1935, according to which banks could not acquire stock of other firms in a value higher than their reserve fund.

Banks were also limited in the amount of interest they could charge, both on deposits (from the liabilities side) and on loans and commercial credit (from the assets side). Interest on demand deposits was limited to half of the Bank of Portugal's rediscount rate, and interest on loans and commercial paper could not exceed that same rate by more than 1.5% (Decree 20,983, of 7 March, 1932). Consequently, banks operated on a tight margin of interest, and one that was determined exogeneously. The law, however, did not establish limits on interest offered on time deposits.

In addition to all of this, government authorization was needed to open a bank (even when adhering to the requirements of the law), for a bank to merge with (or acquire) another bank, and to open branches.

Mention must also be made here of Law 1,894, of 11 April 1935, even if it was enacted only in a patchy way. The law was an attempt to overhaul the banking system, but was never fully complemented with the necessary companion legislation. Still, some of its principles were applied: besides the rule (noted above) concerning ownership of stock of other firms, the law established that the number of banks should be frozen until 1940, except by transformation of non-incorporated banks into incorporated ones or by mergers between existing banks, and even then only after governmental authorization (note that this rule was applied very strictly by the Government, not just until 1940 but in reality until 1974).

It is easy to see that according to this institutional setting, banks had very limited freedom of action: deprived of an interest rate policy and forced to hold high cash reserves, they could not lend in the long run and could apply in stocks or bonds only a very limited portion of their resources. Also, if they wished to expand geographically, the government's authorisation was needed. It is possible (and this is an important idea of much of the literature on Portuguese banks) that such lack of freedom was somehow seen by them as advantageous, due especially to the protection of their position in the market. The rules preventing free mergers or acquisitions as well as entries in the market might have contributed to such protection: since the market was not freely contestable, this gave them an apparent free hand to engage in anti-competitive practices. Still, this requires some qualification: mergers, acquisitions, and entries were dependent of governmental authorisation but were not forbidden. This means that, although restricted, the threat of exclusion from the market still existed.

The institutional framework resulting from the combination of Decree 10,634 and Law 1,894 was criticized at the time on several bases. The first criticism came from Henry C. Wallich, an American economist working in the context of Marshall Aid, who wrote a report on the Portuguese financial system in 1951. According to Wallich (1951), "Portugal's credit system is well developed in some fields, less so in others. Facilities for short-term commercial bank credit are ample [...]. [But] in the fields of agricultural and colonial credit, and of long term credit and capital for industry, much progress is still possible". Many Portuguese economists and political actors would later repeat the main thrust of this opinion. Pereira (1953) (one of the leading banking specialists of the time) noted that, "in terms of credit, the natural ability of Portuguese banks is concentrated in the short- and medium-run, as the *liquidity principle* limits strongly the use of capital for long-run periods". In a later work, Pereira (1956b) insisted that by

keeping such high levels of liquidity, “the commercial banks do not want, or cannot, channel the capital they have available to finance operations” (similar observations can be found in Pereira, 1956a)¹.

Many of these criticisms have been echoed in recent literature, such as Sérgio (1990), according to whom the Portuguese commercial banking system in the 1950s was defined by “excess liquidity [...] and the apparently almost exclusive financing of commercial activity. [...] The protectionism in which the market lived and the restrictive rules in which the firms acted pushed competitors away and allowed them to obtain such high rents that they could operate in an environment of excess liquidity (without need to find profitable operations)”². Valério (2010) also noted that “the restrictions put by the existing legislation and the dominant practices of the banks generated a situation of excess reserves that can be truly classified as structural”³.

Some authors have noted how certain practices partially corrected the situation. According to Wallich (1951), for instance, a “factor that affects the volume of credit that can be built up within the limits given by legal reserve requirements is the inclusion, in legal reserves, of deposits in other commercial and savings banks. The law permits the banks to count as reserves not only their holdings of notes of, and deposits in, the Bank of Portugal, but also their deposits in third banks. This practice makes possible an expansion of credit beyond what would be feasible on the basis of reserves in the form of Bank of Portugal notes and deposits alone.” The same author also noted that “the severity of the limitation [on cash reserves] is tempered by the fact [...] that the 90 day category includes long-term securities that are traded in the market, as well as drafts and current-account credits that mature only nominally within 90 days and are, in fact, renewable for longer periods”.

Accurate or not, such criticisms inspired important legislative changes. The most important of these was a new legislation package aimed at a full reorganization of the banking system (Decree-Law 41,403, of 27 November 1957, and Decree-Law 42,641, of 12 November 1959). The amount of capital required for banks to function was raised: existing banks in Lisbon and Porto could keep their doors open as long as their capital reached 30 million *escudos*, and 10 million if they functioned outside of those two cities. For new banks, however, initial capital had to reach 50 million *escudos* in Lisbon and Porto, and 20 million in other localities.

There were still strict limits regarding the acquisition of stock of firms: these values could never represent more than the reserve fund plus 20% of the capital of the banks and could not exceed 20% of the capital of the firm. But prudential rules concerning the size and composition of cash reserves were altered in a less restrictive way. Now, instead of covering 20% of demand deposits, cash reserves were to cover only 15% of demand deposits and of time deposits of less than one month. They should also cover 5% of time deposits of more than one month. The remaining percentage of deposits not covered by primary cash reserves had to be covered either with liquid assets or assets with a maturity period of preferably three months and never more than one year. These limits changed several times until 1973, with the purpose of increasing the ability of commercial banks to lend for longer periods (by reducing the size of cash reserves and increasing the maturity of the assets present in the secondary reserve) (Valério, 2010).

The 1957-59 legislation sought to deal with the question of long-run lending through other means, such as the creation of a new type of bank: the investment bank. Banks of this sort would need an initial capital of 300 million *escudos*, with at least one member of the board nominated by the Government. This was followed, in 1958, with

Decree-Law 41,957, of 13 November, creating an investment bank, the National Development Bank (*Banco de Fomento Nacional*), with initial capital of 1 billion *escudos*, 61% of it owned by the Government.

The 1957-1959 legislative framework would be complemented and changed by new measures taken during the 1960s. First, Decree-Law 46,492, of 18 August 1965, for the first time limited the rates offered on time deposits. The same legal document and Decree-Law 47,910, of 7 October 1967 authorized commercial banks to make loans for more than two years, as long as they were based on time deposits (loans for longer periods had to be based on the capital of the banks). Decree-Law 48,948, of 3 April 1969, allowed banks to make loans from one to five years, as long as they were based on six-month time deposits or on bonds.

One further element of the legislative environment faced by the Portuguese banking sector that needs mention is its position within the corporatist institutions typical of the *Estado Novo*. Since this regime defined itself as being “corporatist”, it sought to cover most social and economic activities with the appropriate institutions. Accordingly, the banking sector was granted a representative in the Corporatist Chamber, a consultative legislative body created in 1933. In April 1935, the above mentioned Law 1,894 created the National Credit Council (*Conselho Nacional de Crédito*), where representatives of the Government and the banking sector should meet to deal with issues affecting the market. Although this institutional environment had the potential of giving bankers an instance for exerting control over the market, the few indications we have are that the council never had a great role in disciplining it. Despite various agreements between bankers, they were not respected (see below). On 24 November 1936, an Authorization of the National Institute for Labour and Social Security (*Alvará do Instituto Nacional do Trabalho e Previdência*) created the official

(corporatist) bankers' association (*Grémio Nacional dos Bancos e Casas Bancárias*), devoted mostly to negotiating labour conditions with the sector's unions, along with a limited role in coordinating the market. In July 1949 (Decree-Law 37,470) a General Inspection of Credit and Insurance was created, to supervise the activity of banks and insurance companies. On 23 September 1957, the Government authorized the creation of the Credit and Insurance Corporation, even if, according to Valério (2010), it had "a negligible role in Portuguese banking life".

2. Some preliminary indications of competition

The new legislation of 1957-1959 did not change the repressive nature of the institutional framework. Both the observers of the period and recent historians seem to suggest, nevertheless, that, in spite of it, banks still benefited from a cosy environment. Although not founded in any explicit theory, Sérgio's (1990) idea that banks enjoyed such high rents that they could sit on a pile of cash reserves in excess of the legal requirement (something that is also stressed by Wallich, 1951, Pereira, 1953, 1956a, 1956b, and Valério, 2010) raises some issues.

First, the idea implies that banks somehow enjoyed some form of "excess profits". Only under such conditions could they forgo income earned in credit instruments, keeping much of their assets in sterile cash reserves. Under perfect competition no existing agents in the market can influence the price, and profit maximization takes place at the point where marginal cost equals marginal revenue. "Excess profits" for such a long period as the one studied here can only exist, then, if marginal revenue consistently exceeds marginal cost, and this is only possible if some form of protected oligopoly exists. Under such conditions agents are able to determine either the price or the quantity of the product in the market, and this can happen only if there are

high barriers to entry. Banking in itself is not an activity with high natural barriers or initial costs. Consequently, any barriers must be institutional. Such barriers existed in the Portuguese banking market, as discussed above, in mainly two ways: high initial capital requirements and discretionary authorisation by the Government (which additionally had adopted a *cum grano salis* no-new-entrants rule). Under such conditions, particularly the rule preventing new entrants, it seems that Portuguese banks could adopt anti-competitive practices without much fear of being put out of business.

The only hard data the literature presents in favour of this idea, however, is the high cash ratio (excess reserves) of Portuguese banks. No figures on profits are presented and, consequently, no definition of what “excess profits” (or “rents”, in the words of Sérgio, 1990) would be, and how to interpret the existing profit rates. “Excess profits” is one feature of an oligopolistic market. But other potential results of a market of such sort could be the establishment of output quotas, or profit sharing between the agents in the market. In those circumstances we would no longer be in the presence of simply an oligopolistic market, but of a cartel, too. The conditions existing in the Portuguese banking market, mostly through actions within the corporatist institutions, could be propitious to that.

The second idea implied by the literature is that the high liquidity of Portuguese banks represented some form of credit rationing. Protected by existing conditions in the market, banks would have been able to abdicate from engaging in credit activities, since their profitability was high enough even without the full use of the resources at their disposal. But by doing so they would have limited the amount of credit to the economy, with the necessary negative effects on investment and growth.

We challenge such ideas in this and the next sections. Although not conveying the image of an environment of freedom, we nevertheless point to the presence of some

form of competition. In this section we provide some preliminary indicators, with a more thorough analysis in the following ones.

In 1950 the Portuguese banking system comprised 22 incorporated commercial banks, 13 non-incorporated banking houses, and 20 savings banks (INEb, 1953). Incorporated commercial banks dominated the market, accounting for roughly 69% of all deposits (up from 40% in 1938, cf. Roquette *et al.*, 1968) and about 50% of the credit (48% in 1950, 51% in 1951, INEa, 1950). Non-incorporated banks were residual, with a market share in terms of deposits of about 1.5% (INEa, 1950). Most of the 20 savings banks were of small size, with the exception of the National Savings Bank (*Caixa Geral de Depósitos*). Savings banks accounted for about 30% of deposits but most of this came precisely from the *Caixa Geral de Depósitos* (CGD), which represented 90% of all deposits in savings banks and was the largest financial institution in the country, with a market share of around 27% in deposits and 30% in credit (Figures 1 and 2).

CGD was a special sort of institution. In 1929 it had been the object of an important reform: its name was changed to *Caixa Geral de Depósitos, Crédito e Previdência*, and, annex to the *Caixa Geral de Depósitos* itself, two new institutions were created, a National Savings Bank (*Caixa Nacional de Crédito*) and a National Social Security Bank (*Caixa Nacional de Previdência*) (see Reis, 1997, and Lains, 2008). The latter was to manage the pension funds of various types of public servants. The former should act as an investment bank, using the *Caixa Geral de Depósitos*' funds to invest in agricultural and industrial activities. One avowed reason for the *Caixa*'s transformation into an investment bank was the inability of regular commercial banks to lend in the long term (Reis, 1997). There were also 10 credit companies, among which only one was of significant size.

The seven largest commercial banks in 1950 (Figures 1 and 2) were *Banco Espírito Santo & Comercial de Lisboa* (BESCL), the market leader since 1947, with a share of deposits of roughly 18% and one of credit of 11%, followed by *Banco Fonsecas, Santos & Viana* (BFSV), with roughly 13% of deposits and 8% of credit, *Banco Nacional Ultramarino* (BNU), with close to 11% of deposits and 19% of credit, *Banco Lisboa & Açores* (BLA), with approximately 7% of deposits and 4% of credit, *Banco Borges & Irmão* (BBI), with almost 5% of deposits and 2% of credit, and finally *Banco Pinto & Sotto Mayor* (BPSM) and *Banco Português do Atlântico* (BPA), both with about 3% of deposits and 2.5% of credit (in the case of BPSM), and 2% (in the case of BPA). The rest of the banks not listed here were all of a much smaller scale, and sometimes only regional.

The Hirschman-Herfindahl Index (HHI), a measure of market concentration, for deposits in the Portuguese commercial banks in 1950 (which excludes CGD) was 0.15 (Figure 3). The significance of this value in terms of market concentration has no immediate interpretation: did this represent a high, moderate, or low degree of concentration? There are no generally accepted standards of assessment, but the merger guidelines of the US Department of Justice can be used as a benchmark. According to its latest version (of 2010), an HHI below 0.15 would reveal a non-concentrated market, whereas a value between 0.15 and 0.25 would reveal a moderately concentrated market, and a value beyond 0.25 a highly concentrated one (US Department of Justice and Federal Trade Commission, 2010). But these figures are subject to fluctuation. In the 1982 version of the same guidelines the values were different: less than 0.10 for non-concentrated markets, between 0.10 and 0.18 for moderately concentrated markets, and beyond 0.18 for highly concentrated ones (US Department of Justice and Federal Trade Commission, 1982). In addition to these indefinitions, international comparisons are

also affected by various institutional specificities for each industry and country that have an impact on the interpretation of such figures. Still, it would probably not be unfair to describe the Portuguese commercial banking market as moderately concentrated⁴.

The concentration ratios in Figure 4 (measuring the proportion of deposits appropriated by, respectively, the three, five, and seven largest commercial banks in Portugal), together with the international data in Table II, seem to corroborate this idea, as they show a degree of concentration that was lower than in Canada or the UK and that was not far from France or Spain.

Twenty three years later, in 1973, the banking structure had changed considerably. Commercial banks now held 80% of all deposits in the country (the remaining 20% being almost entirely held by CGD) and 65% of credit (INEa, 1973). The number of incorporated banks had dropped to 14 (down from 22) (Valério, 2010) and the number of non-incorporated banks to 7 (down from 13) (INEb, 1973) (this was not the result of failures, but of the transformation of non-incorporated banks into incorporated ones or from mergers and acquisitions).

The 1973 picture reflected the changes in the relative position of the seven largest banks that took place since 1950, as Figures 1 and 2 show. In 1973 BESCL was still the market leader in deposits and the third largest bank in credit, but its deposits' market share was now much lower (a little more than 12.5%) and that of credit was more or less the same. The subsequent positions were now occupied by the two smallest (among the seven larger) banks in 1950, BPSM and BPA. Both had jumped from a market share of approximately 3% of deposits to one that matched closely that of BESCL (roughly 12%) and had even been able to overtake BESCL for a few years (BPA between 1965 and 1969, a period in which it was the market leader, and BPSM in 1967 and 1968).

Something similar had happened in terms of credit, and the market share of each of these three banks (BESCL, BPA, and BPSM) now matched that of BNU (close to 11%). The second bank in 1950, BFSV (which changed name to *Banco FONSECAS & Burnay* after a merger with *Banco Burnay* in 1967), with a market share of about 5% in deposits and 4% in credit, was now the smallest, and even this market share was only possible thanks to the merger with *Banco Burnay* (BB) (BFSV reached its lowest share one year before the merger, in 1966). The third bank in deposits in 1950, BNU, was now fourth, with a lower share than in 1950 (more or less 9%) and was accompanied by two banks of much lower size in 1950 (BLA, which meanwhile had changed its name to *Banco Totta & Açores* thanks to a merger with *Banco Totta-Aliança* in 1969, and BBI); in terms of credit, however, BNU was able to stay at the top, although with a much smaller share than 23 years earlier.

A few aspects of the evolution just portrayed should be underscored: a) the threat to the market leader (BESCL) posed by two initially much smaller competitors but that proved to be considerably more dynamic throughout this period (BPA and BPSM): BPA increased its market share (both of deposits and credit) steadily since the 1950s, BPSM only since the 1960s; b) the persistent decline of what was, in 1950, the second most important bank in terms of deposits (and third in credit), BFSV; c) the decline of BNU, even if much less pronounced than that of BFSV (and still keeping the primacy in terms of credit); d) the interesting and dynamic behaviour of an initially small bank that was able to reach an intermediate position in 1973, BBI; and e) the decline of a bank of intermediate size in 1950 (BLA), which was rescued at the eleventh hour by the merger with an institution of similar characteristics, *Banco Totta-Aliança* (BT-A). We, thus, have, on the side of dynamism BPA, BPSM, and BBI, and on the side of decline, BFSV, BLA, and BNU. On top, we have BESCL, struggling to keep its position, with

initial decline but apparent late recovery. All of this in a general picture of increasing importance of commercial banks, winning much away from CGD, in both deposits and credit: CGD had now approximately 18% of market share in deposits and 15% in credit.

A remark should be made about *Banco de Fomento Nacional* (BFN), the state's investment bank created in 1958. Although it started out as the third largest credit institution when it initiated activity in 1960, with close to 9.5% market share, in 1973 it had fallen to the lowest position next to *Banco Fonsecas & Burnay* (BFB) (about 5%) (Figure 2).

We lack good historiographical works on individual banks, but the few that exist still allow for some general (and necessarily brief) observations on their evolution during this period. Starting with the most dynamic ones, BPA was the first of the smallest banks (among the big seven) to make inroads to the top. Created in Porto in 1942, by the transformation of a banking house, BPA tried from the outset to expand to Lisbon. Resistance from the traditional Lisbon banks (BESCL, BFSV, BNU, and BLA) and from the Government (which did not authorise the opening of a BPA branch in the city) meant that BPA started activity in Lisbon only in 1950, and even then only through the acquisition of a smaller local institution (see Banco Português do Atlântico, 1993, and Bessa-Luís, 1969). From then on growth was constant. BPA introduced new goods and services, challenging the tradition of larger rivals. A special aim of BPA was popular savings (with special attention to emigrant remittances) in opposition to the wealthier clientele of its rivals (Banco Português do Atlântico, 1993). Success was clear and the bank set standards that were ultimately adopted by the remaining leading banks, including some of the most conservative.

BPSM only followed a similar evolution after 1960, when a cement tycoon in the process of building a large business group, António Champalimaud, bought a majority

share of its capital (Câmara, 1989). Until then, BPSM was one of the least active banks in the market, continuing along the line of business established since its creation in 1926 (by transformation of a banking house founded in 1914). But from 1960 on growth was steady, with the bank following the same sort of methods introduced by BPA, although with closer attention to the new urban middle class rather than the emigrants' relatives in small towns.

BBI was also among the best performing institutions, even if growing less spectacularly than BPA and BPSM. This seems to have been deliberate and related to the nature of the bank itself, which was essentially the financial arm of an old and traditional business group (Sousa, 1984). Created in 1937 in Porto, by transformation of a banking house, the bank long remained mostly regional (although having an office in Lisbon) and should be seen mostly as a parcel of the business interests of its owners. The rest of those interests (spread among various industrial sectors) was concentrated in a sister company called *Borges & Irmão Comercial* (Sousa, 1984). The bank functioned, thus, with a less strict financial logic than other banks.

Looking now at the declining institutions, we can start with the most spectacular case, that of BFSV. Its most important feature was that it remained the only unit bank among the big seven, at least until 1967 (Câmara, 1985). The switch into branch-banking took place only through the merger with BB (see below the figures on branching). This was a deliberate policy, with the bank (created in 1937) concentrated on its old single office in Lisbon (inherited from the earlier banking house). If in the early 1950s this was not much of a problem, as the other banks still had a small branch network, it became more serious as time passed, so much so that it led to the ultimate decadence of this very traditional bank. Only the merger with BB broke its fall.

Conservatism was also a hallmark of BLA. One of the most traditional banks, coming from the nineteenth century, it had a prosperous period of boom in the twentieth century during World War II, but had much trouble following the modern trends of geographical expansion and popular banking (Câmara, 1972). The bank was only rescued by the merger with BT-A. The latter had similar size, allowing the new bank, *Banco Totta & Açores* (BTA), to double its market share.

BESCL is different from the other declining banks. First of all, its decline was never comparable to that of BFSV and BLA, as it was able to keep the lead in terms of market share, even if at a lower level than at the beginning of the period. Second, BESCL, together with BNU, had become during the 1930s and 1940s the first true national-sized banks, thanks to a primitive movement of geographical expansion (Damas and Ataíde, 2004). But BESCL had difficulties coping with the new aggressiveness brought by BPA and BPSM. Still, having been caught at the top by these two rivals, it adapted rapidly to the new competitive environment and recovered leadership. The late 1960s and early 1970s are, for BESCL, the story of this struggle.

Mention must also be made of the special case of BNU. BNU had been virtually nationalised in 1931, a result of the difficulties felt by Portuguese banks at the beginning of the crisis of the 1930s (Valério, 2010). It was a rather strange institution: created in 1864 as a private venture dedicated to colonial development, it was also given the monopoly of money emission in the colonies, a role it retained (although losing it in the case of Angola in 1926) until 1975. But most of its development took place in the mainland, a process that made it the largest commercial bank in the country. Between 1931 and the early 1950s its solvency was progressively restored, and only in the 1950s was it possible for the state to withdraw from its administration. This withdrawal, however, was only partial, and the state continued to control much of its activity, since

it approved the board of directors, while at the same time nominating many of its members (Valério, 2010).

The changes just outlined were reflected in a degree of concentration that fell between 1950 and 1973, as measured by both the HHI and the concentration ratios (Figures 3 and 4), especially until the early 1960s. The HHI passed from levels around 0.15 in 1950 to around 0.10 in the 1960s (and remained at that level in 1973), which, taking the US Department of Justice values as a benchmark, should be seen as corresponding to a non-concentrated market. As for the concentration ratios, the decline was particularly pronounced in the CR3 indicator, showing that loss of market power took place essentially at the top end of the spectrum. This is certainly a result of the erosion of BESCL's position, thanks to the challenge posed by BPA and BPSM. The decline in CR3 is also explainable by a loss of market power of the three largest institutions as a whole. As a matter of fact, no other bank was capable during this period of reaching BESCL's market power in 1950, and the three banks in the intermediate position, BNU, BBI, and BTA, were not so distant from the three largest ones in 1973. That is why the decline of CR5 is less pronounced than that of CR3 and the decline of CR7 is overall practically non-existent. By the end of the period the seven leading banks were still the same (although reflecting various mergers), but their order in terms of importance in the market had been radically altered.

Although apparently straightforward, measures of market concentration pose problems of interpretation when used as a proxy for competitive behaviour. Market concentration does not tell us if banks can exert effective market power, and for more than one reason: first, concentration may itself be the consequence of high competition; in this case, concentration would just be the outcome of a competitive process in which the most efficient institutions would have been able to drive the least successful ones

out of the market. Consequently, a declining concentration would not necessarily indicate more competition. Also, even admitting that higher concentration by itself means market power, one needs to wonder about the level beyond which market power becomes possible. A further point is that a concentrated market may have other features (such as ease of entry, regulations, or technology) not allowing for anti-competitive behaviour on the part of the existing agents. Market concentration measures do not, therefore, confirm by themselves the existence (or lack) of competition. But they are a preliminary indicator, and the behaviour of the measures presented above do raise some questions regarding the idea of a “cosy” environment for Portuguese banks, in which they could simply rest on their earlier achievements. Next, we will use a series of other indicators that are more explicit in this respect.

3. Liquidity, interest rates, deposits, capital, and profitability

3.1 Liquidity

Due to the importance attributed to it in the legislation and the literature, we start with the issue of cash reserves. Assessing the actual amount of cash reserves held by Portuguese banks in this period is not simple, due to a particular accounting issue. Until 1960, the law allowed banks to register in their books as cash reserves three types of assets: actual cash held in their vaults, deposits at the Bank of Portugal, and deposits in other commercial banks. In 1960 the General Inspection of Credit and Insurance imposed a new standardised system of accounting on banks in which deposits at the Bank of Portugal and in other banks were separated from each other. The issue is relevant because the Bank of Portugal was, since the 1930s, progressively withdrawing from the commercial market. Unfortunately, our knowledge of its operation in the postwar period is virtually non-existent. We know that in the 1930s and 1940s the bank

was still an important player in the credit market, contributing to the money multiplier effect (Reis, 1999). But it is highly probable that changes were more pronounced after 1950, and that deposits at the Bank of Portugal increasingly became true idle reserves. What we do not know is the pace of the process, and one thing for which there is no doubt is that deposits in other institutions, despite being counted as reserves, entered in the credit cycle.

In order to partially correct for these problems, we calculate cash reserves held by banks in two different ways (Table II). The first (Panel A of Table II) shows cash reserves as they were registered in the banks' books, i.e. including true cash, deposits at the Bank of Portugal, and deposits in other banks until 1959. Here the pattern is clear: in 1950 all banks held reserves in excess of the legal limit by a very large amount; however, the subsequent fall was very steep, so that by the early-1960s that amount had converged to the legal limit. Panel B of Table II presents the data in a different way: from 1960 on cash reserves are those registered in the banks' books (and thus are equal to the data given in Panel A), but between 1950 and 1959 the deposits in other banks are skimmed from the overall figure through an estimate separating them from deposits at the Bank of Portugal. Now the figures are considerably different: the initial amount of reserves is much lower, even if still slightly above the legal limit. This means that most of the reserves held by commercial banks in excess of the legal limit in the 1950s corresponded in reality to deposits in other commercial banks. Even so, the downward trend (although milder) is still visible, and this method of accounting would suggest that not only did banks not hold the amount of excess reserves that is normally attributed to them, but also that they were already within (or very close to) the legal requirements by the early 1950s⁵.

Which of these two ways more correctly accounts for the banks' cash reserves hinges upon the amount of credit actually provided the Bank of Portugal, for which we currently do not have enough information. But the figures we have presented do raise the possibility that the often mentioned "structural problem" (Valério, 2010) of "excess reserves" was, to a large extent, simply an accounting problem. Portuguese commercial banks probably managed cash reserves in a much tighter way than usually acknowledged, thus questioning the traditional belief in excessive prudence.

3.2 Interest rates, deposits, and branches

Portuguese commercial banks were forbidden by law to have an autonomous price policy, as interest on deposits and credit were indexed to the Bank of Portugal's rediscount rate (see Section 1). The interest margin was, thus, ultimately decreed in an exogenous way by the Government.

However, when we look at the average interest rate practiced on deposits by the seven largest commercial banks, we find a not insignificant variance (Figure 6). A note should be made about these series. They do not correspond to precise figures of the average interest rate of the various banks, but to an estimate. There are two sources of imprecision. First, registration of deposits in the banks' books are separated by just three (and sometimes only two) categories: demand deposits, time deposits, and small-time deposits; but there were many more interest rates, depending on the maturity of the time deposits (one month, three months, six months, one year). It is thus impossible to directly link the various rates with the various types of deposits. The second source of imprecision comes from the fact that in their books banks lumped together into a single accounting item all income from interest and all income from commissions. The

estimates presented here are the ratio (x100) of all income from interest and commissions over all the amount of deposits.

Despite the imprecise nature of the data, they show remuneration policies differing from bank to bank, sometimes by a large amount (Figure 6). In the 1950s the difference between the bank paying the lowest average rate and the one paying the highest was between the lowest range of 0.5%-0.75% and the highest of 1.5%-1.75%-2%, and in the 1960s and 1970s the difference was similar, although at higher rates. It is easy to see that much of the difference was caused by the rates practised by BBI. But in the 1960s more banks adopted similar remunerations. And even if we do not take BBI's rates in the 1950s into consideration, the differences continued to be significant (sometimes the highest twice that of the lowest). Another bank that stands out in comparison with the others is BNU, although for the opposite reason of BBI: its consistency in paying the lower rates in the market. These two contrasting behaviours are easily explained by the nature of each of the banks: BBI was the dynamic financial arm of a business group, able to squeeze the financial margin in search of funds for other activities; BNU was a para-public institution that could pay low interest and still attract a large number of depositors, thanks to the implicit protection from bankruptcy guaranteed by state ownership.

If banks could not compete on the interest rates offered to depositors, the only explanation for the differences just reported must have lain in the types of deposits held in each bank, as time deposits were remunerated at a higher rate than demand deposits. Figure 7 shows that indeed the volume of time deposits differed between the various banks, even if increasing in all of them during the 1960s. Not surprisingly, taking into consideration the previous data on interest, BBI appears as the bank with the highest proportion of time deposits most of the time. In 1950 the seven banks under analysis

could be classified into two groups in terms of holdings of time deposits: on the hand, we had BBI, BPA, BPSM, and BNU, with a higher proportion of time deposits; on the other, BESCL, BLA, and BFSV, with the lowest. This fits well with the picture above of the most and least dynamic banks. The initial exception is BNU, but it soon converged in the rest of the period to the pattern that was typical of the least dynamic. The most active in the process of attraction of time deposits were BBI, BPSM, and BPA. But all others also entered the race as time passed. In 1973 their figures for time deposits ranged between 35% and 50% of all deposits.

From the 1960s on the attraction of time deposits was, thus, an important instrument of competition. Until 1965 there was no legal restriction on the interest asked on time deposits (the important legal restriction here being, of course, the one on credit, as banks could not offer rates on time deposits for which they could not find a match from the assets side). But the introduction of legal limits for rates on time deposits in 1965 did not halt their growth.

The idea of competition through time deposits is supported also by some qualitative data. Silva (1967) noted that, in the 1960s, “an increasing number of banks launched truly aggressive campaigns in order to attract depositors. Such campaigns would not have been very rewarding, however, if banks had not used the return associated to those deposits as an instrument. As a consequence [of the existing legal limits], the fight had to be concentrated in time deposits”. Various banks seem to have even crossed the line of legality: “outdated rates have fostered [banks], in terms of liabilities [i.e. deposits], not to comply with the law or to go subtly around the spirit of the law” (Silva, 1968)⁶.

In the 1960s complaints by banks about the legality of the practices of their competitors boomed. The meetings of the National Credit Council, where

representatives of the various banks and of the Government met, overflowed with such complaints. In one of these meetings (June 1964), Fausto de Figueiredo, the representative of BFSV, could not have been clearer: “it is common knowledge [...] that legal dispositions [...] are not met” (GNBCB, 1964, p. 14). In another meeting, one month later, the Visconde da Merceana, representative of BNU, paraphrased an article in a Spanish magazine: in a year in which the maximum legal rates on time deposits were 3%, some banks paid 4%, 5%, 7%, and even, in the case of certain large accounts, 10%. According to the Visconde da Merceana, this was “the perfect picture of what is happening in Portugal” (GNBCB, 1964, p. 9)⁷. According to Daniel Barbosa, from BFN, in a meeting of the Council held in June 1967, besides the manipulation of rates, another common practice was to classify demand deposits as time deposits, thus allowing for increased attractiveness to clients in terms of both rates and liquidity (GNBCB, 1967, p. 19).

The disregard for legal limits concerning interest rates was so serious that in 1967, under the Bank of Portugal’s sponsorship, all commercial banks plus six banking houses signed an “Agreement on the Discipline of Banking Activity” (“*Compromisso relativo à disciplina da actividade bancária*”) (GNBCBc, 1967), in which they pledged to respect those limits. One year later, however, under the argument that the agreement was not being respected by competitors, BESCL withdrew from it (Damas and Ataíde, 2004). In 1970 a new agreement was signed (GNBCGc, 1970), but the lack of respect for this document was universal⁸. Figure 6 shows this: in 1969 all average interest rates of the various banks converged to the same value. But in 1970 the difference between them had widened again, and continued to do so until 1973.

Interest was not the only instrument used by banks to attract deposits. Another very important one was geographical expansion, typical of markets where competition

is otherwise limited. There was throughout this entire period a rush for the opening of branches, particularly in the second half of the 1960s. Available aggregate data are very patchy, but they still convey a picture of strong growth. According to Sérgio (1990), between 1950 and 1959 the Government authorized the opening of 121 branches. Pintado and Serra (1966) count 364 branches in 1965 and 539 in the following year, i.e., an increase of 165. This means that in one single year more branches were opened than during the entire 1950s. According to Carvalho (1973), the number of branches had grown to 778 in 1972, more than twice the number of 1965.

Aggregate data are difficult to obtain, but we have built series for the branches of the seven largest banks under analysis. Figure 8 shows the results, confirming the general impression of growth. BNU was undoubtedly the bank with the largest presence in the country since the 1950s. BESCL was second, but never acquired such a vast network as BNU. This confirms the idea that these were the only banks having a true national dimension at the beginning of our period of study. BPA displays the most consistent growth, very much connected with its strategy of capturing popular savings in large cities as well as in small towns. By the 1960s its network was the size of BESCL's. Although growing as much as BPA in the 1960s, BPSM increased its network of branches more slowly. This is related with its concentration (contrary to BPA) in a more urban clientele. BBI also shows strong growth, with an expansion close to that of BPSM in the 1960s, although slower than BPA. BLA shows modest growth until the late 1960s, but with a sharp jump in 1970, almost doubling its network thanks to the merger with BT-A, allowing it to catch up with BESCL and BPA. Finally, there is the case of BFSV, which remained outside of the branch rush until 1967, with just one office until 1965 (in Lisbon), and two in 1966 (with the new Porto office). Only the

merger with BB allowed BFSV to acquire a network of branches, and even then smaller than the rest of the big seven.

Lack of competition between banks would have been translated into high interest rate margins. Figure 9 shows the financial margin, the difference between income earned and paid on interest, of the banks analysed. These figures are subject to the same sort of shortcomings as the data on interest presented above: they lump together income from interest and commissions. Another shortcoming is that the data start in 1960, the reason for this being that most banks were not forced by law to publish income earned from credit instruments. Still, they show an interesting picture, namely one of substantial differences throughout the period. Again, not surprisingly, the bank with the closest margin was BBI, and also not surprisingly, the one with the largest was BNU. We have seen above that the latter generally practised the lower rates on deposits, and the former the higher ones. The margins of other banks fell between the two extremes, although BPA converged to lower levels in the last years of the period. Was this high or low? Table III provides some figures for other countries. The Portuguese values look very much like the norm.

3.3 Capital

The idea of lack of competitive behaviour of Portuguese banks in this period may be questioned by still other data, such as the banks' capital ratios. Note that the legislation of the time did not establish proportional limits but rather absolute amounts (see Section 1). When we look into the capital-assets ratios of the banks under analysis, they reveal increasingly higher leverage (Figure 10). Well capitalised in 1950 (in a range between 7.5% and 11% of their assets, if we exclude BNU) their capital ratios fell

steadily throughout the period, so that by 1973 all of them had ratios below 5% (between 3% and 4.8%).

The only exceptions to the generalised pattern shown in Figure 10 are BNU and BFSV. BNU was consistent in having the lowest capital ratio of all banks, something most probably explainable by its “advantage” as a semi-public institution. Such status, implying the impossibility of bankruptcy, meant that it did not need to show any special solidity in order to be trustworthy to clients. BFSV represents the almost opposite case: being a unit bank unwilling to expand geographically when all other banks were doing so quickly, it preferred to invest in solidity, setting it apart from other banks in this respect. The more the competitors expanded geographically, the more BFSV had to increase its capital, in order to retain and attract depositors. As we will see next, this had very serious implications for profitability and ultimately forced the bank to change strategy, when it merged with BB. After that moment the bank’s capital ratio converged quickly to the general pattern. If we disregard BFSV, the capital ratios of Portuguese did not set them apart in international terms (Table IV).

3.4 Profitability

The argument over the excessively protected environment in which Portuguese banks lived rests ultimately on the issue of profitability. Unfortunately, this is one of the most difficult measures to obtain with accuracy, as accounting standards and practices allow for much imprecision. Capie and Billings (2001), for instance, have revealed the significant extent to which the reported profits of the English clearing banks in the twentieth century differed from true ones. The main source of divergence were the unreported (publicly, although reported secretly) “hidden reserves”. Capie and Billings (2001) could only establish the importance of these reserves thanks to a reconstruction

of the banks' profits-and-loss accounts based on unpublished data from the banks' archives. This is something we cannot provide at this stage for Portuguese commercial banks. We must, as a result, simply rely on published data. When other information from unpublished archival material becomes available it will be possible to compare it to our figures.

With these caveats in mind, the existing data provide an interesting picture. The figures for the return on equity (ROE) of the seven largest commercial banks presented in Figure 11 are the published after-tax profits calculated as a ratio of equity and reserve funds (x100). When we compare them with what we know from other countries (Table V), they do not stand out as different, quite the contrary. The exception is, again, BFSV, with its low record, something mostly explainable by the extraordinarily high capital ratios it had as a consequence of its unit-bank strategy. A visible feature of ROE of Portuguese banks is its decline during the 1960s, coinciding with the rush for branches and deposits, thus suggesting that more competition led to the squeezing of the banks' profit margins. If, in 1965, ROE of Portuguese banks ranged more toward the high end of the international spectrum, the opposite occurred in 1973 (Table V). Figures for return on assets (ROA) in Figure 12 provide an even clearer picture of the connection between profits and a higher cost structure. These figures show two movements: on the one hand, convergence between, and on the other, consistent decline of ROA of the various banks, both taking place essentially in the 1960s. The international comparison in Table VI shows again that the behaviour of Portuguese banks was not dissimilar to other countries.

Even if these figures will be revised by later findings of unpublished data in banks' archives, they raise doubts about the idea common in the literature that Portuguese banks were granted "excess profits" by the existing institutional

environment. Perhaps this should not surprise us, if we recall the main features of the legislation. As a matter of fact, banks had almost no choice in terms of the interest to pay on deposits and on the interest to earn from loans, and had to face, additionally, strict limits on the use of alternative assets (such as stocks or bonds). Competition was certainly felt in the increase of costs related to the efforts to attract depositors (higher interest paid on time deposits, lower interest asked on loans, and higher real estate and personnel costs in new branches), but this requires amore detailed study in the future.

Conclusion

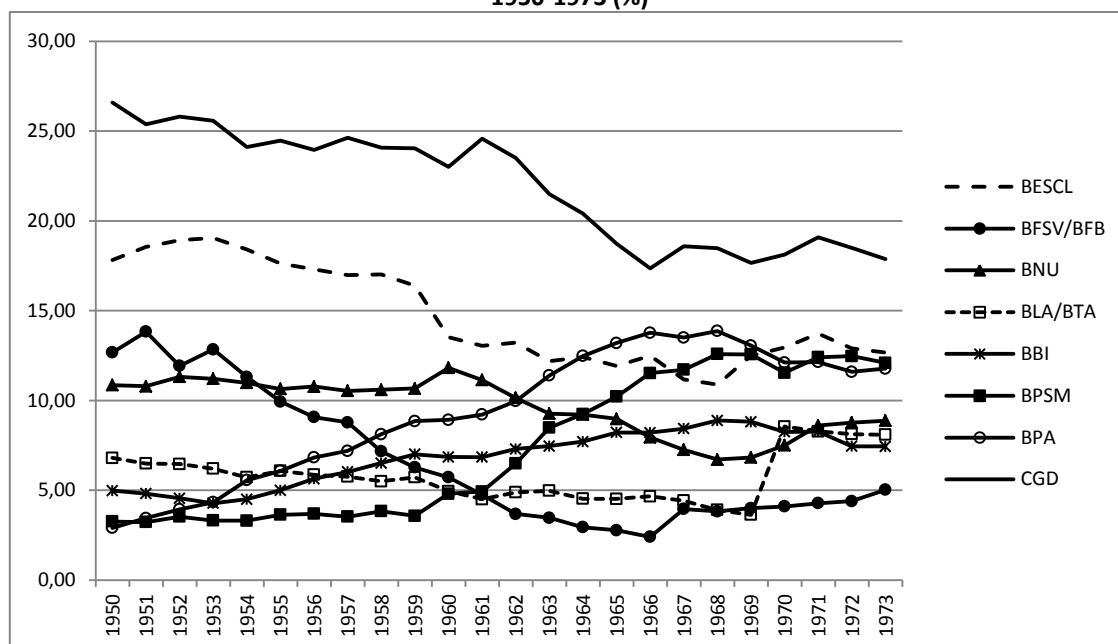
We have shown in this paper that despite the legal restrictions existing in the period 1950-1973, Portuguese commercial banks found various ways of competing with each other. This raises doubts about the idea, common in the literature, that they lived in a “cosy” environment based on “rents” and “excess profits”. The reversals of fortune of several of the main banks show that their position in the system was not granted once and for all. And the comparisons with banks in much of the western world, despite all the problems involved in these comparisons, suggest that they did not live in an especially protected environment by international standards.

The picture we have drawn here is, however, essentially an impressionistic one. Any agenda for future research needs to go beyond this and provide more formal tests of the degree of competition. A test of the Panzer and Rosser (1987) type is already under preparation. But other topics are also worth attention: we have seen that much of the evolution of Portuguese banks in this period depended on discretionary measures of the Government, such as entry in the market, the opening of branches, and the establishment of interest rates. Future works should analyse the political economy dimension present in the relationship between Government and banks. A thorough study

of the structure of credit is also needed. The banks' published accounts do not allow for detail in this respect. Knowledge of their actual credit policy will have to rely on yet unpublished material lying in the banks' historical archives, although we cannot be sure right now of the existence of relevant data on such unpublished material. This is precisely one last point in any agenda for future research. Not many banks have historical archives, and many of those that have provide only disorganized material. Still, individual histories of those banks having good archival material would certainly be illuminating.

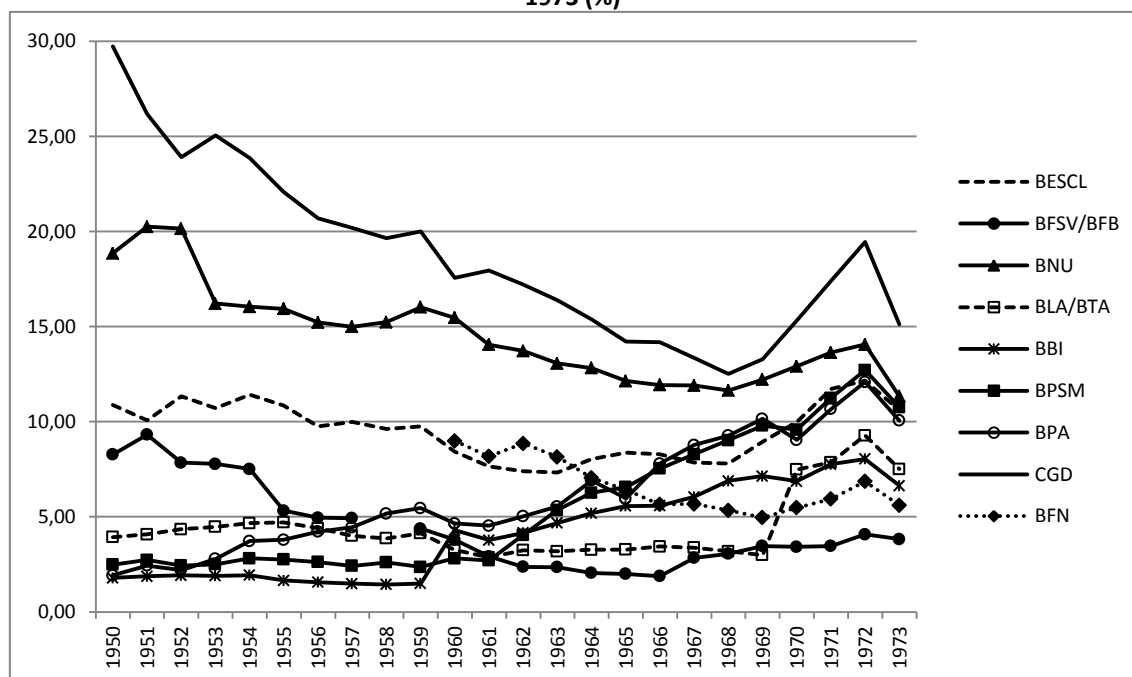
Tables and Figures

Figure 1
Market share of deposits of the seven largest commercial banks and the *Caixa Geral de Depósitos*, 1950-1973 (%)



Sources: commercial banks, 1950-1959: INEC; 1960-1973: Banco Borges & Irmão (1960-1973); Banco Espírito Santo e Comercial de Lisboa (1960-1973); Banco Fonsecas, Santos & Viana (1960-1967); Banco Fonsecas & Burnay (1968-1973); Banco Lisboa & Açores (1960-1969); Banco Totta & Açores (1970-1973); Banco Nacional Ultramarino (1960-1973); Banco Pinto & Sotto Mayor (1960-1973); Banco Português do Atlântico (1960-1973); CGD: INEa.

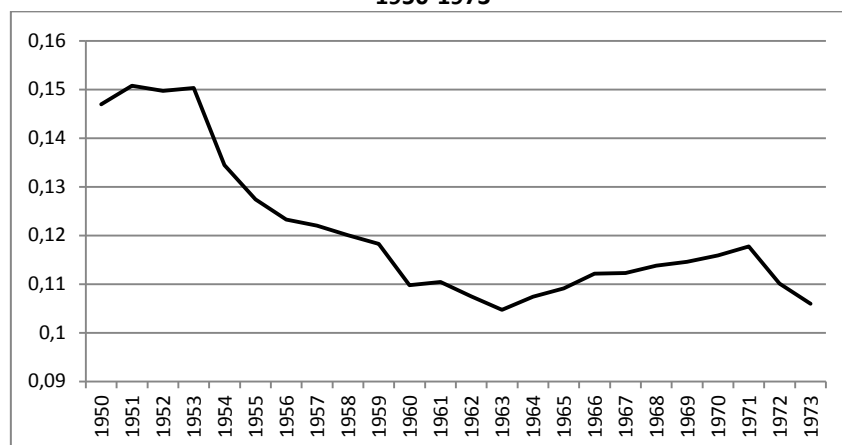
Figure 2
Market share of credit of the seven largest commercial banks and the *Caixa Geral de Depósitos*, 1950-1973 (%)



Note: four items in the banks' accounts were counted as credit: commercial letters, current accounts, creditors and debtors (net), and loans (of various maturities).

Sources: commercial banks, Banco Borges & Irmão (1950-1973); Banco Espírito Santo e Comercial de Lisboa (1950-1973); Banco Fonsecas, Santos & Viana (1950-1967); Banco Fonsecas & Burnay (1968-1973); Banco Lisboa & Açores (1950-1969); Banco Totta & Açores (1970-1973); Banco Nacional Ultramarino (1950-1973); Banco Pinto & Sotto Mayor (1950-1973); Banco Português do Atlântico (1960-1973); CGD: INEa.

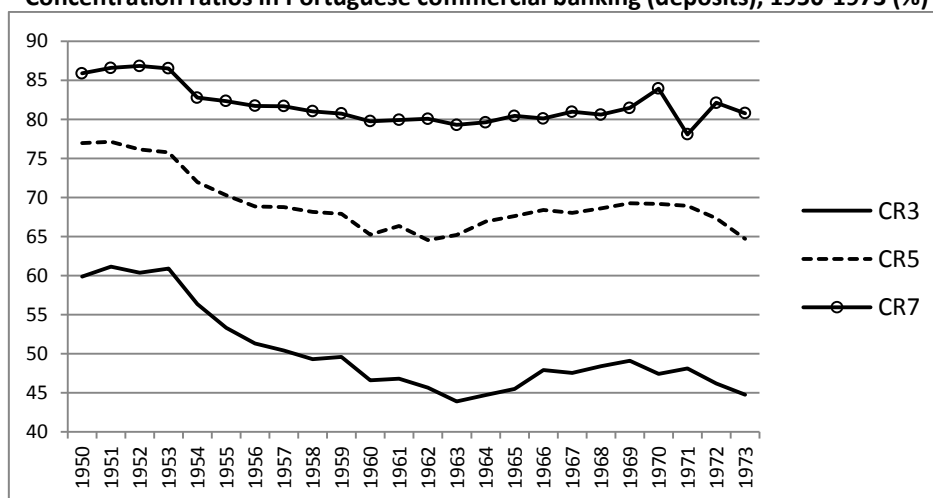
Figure 3
Market concentration in Portuguese commercial banking (Hirschman-Herfindahl Index, deposits), 1950-1973



Note: until 1959 the value of deposits in each bank was published in INEc; after that date this publication disappeared, and the data had to be retrieved from the banks' annual accounts.

Sources: author's calculations based on: 1950-1959, INEc; 1960-1973, Banco Agrícola e Industrial Visiense (1960-1973), Banco da Agricultura (1960-1973), Banco do Alentejo (1960-1973), Banco do Algarve (1960-1973), Banco Aliança (1960), Banco de Angola (1960-1966), Banco Borges & Irmão (1960-1973), Banco Burnay (1960-1967), Banco Espírito Santo & Comercial de Lisboa (1960-1973), Banco Fernandes de Magalhães (1960-1973), Banco Ferreira Alves & Pinto Leite (1960-1963), Banco FONSECAS, Santos & Viana (1960-1966), Banco FONSECAS & Burnay (1967-1973), Banco Intercontinental Português (1972-1973), Banco José Henriques Totta (1960), Banco Lisboa & Açores (1960-1969), Banco Nacional Ultramarino (1960-1973), Banco Pinto de Magalhães (1960-1973), Banco Pinto & Sotto Mayor (1960-1973), Banco Português do Atlântico (1960-1973), Banco Raposo de Magalhães (1960-1964), Banco Regional de Aveiro (1960-1966), Banco Totta-Aliança (1961-1969), Banco Totta & Açores (1970-1973), Companhia Geral do Crédito Predial Português (1960-1973).

Figure 4
Concentration ratios in Portuguese commercial banking (deposits), 1950-1973 (%)



CR3: deposits held in the first three largest banks; CR5: deposits held in the first five largest banks; CR7: deposits held in the first seven largest banks

Sources: see Figure 3

Table I
Concentration ratios, various countries (CR5) (deposits), 1950-1975 (%)

	Canada	UK	France	Spain	Germany	Japan	USA	Portugal
1950	80	84	66	68	-	31	13	76
1955	80	84	70	65	27	29	14	70
1960	83	83	65	64	24	26	15	65
1965	86	81	66	58	25	23	14	68
1970	85	85	57	57	24	21	16	68
1975	81	70	60	51	24	20	18	67*

* 1973

Source: For Portugal, see Figure 3; for the remaining countries Revell (1987), except Spain, Pueyo (2003).

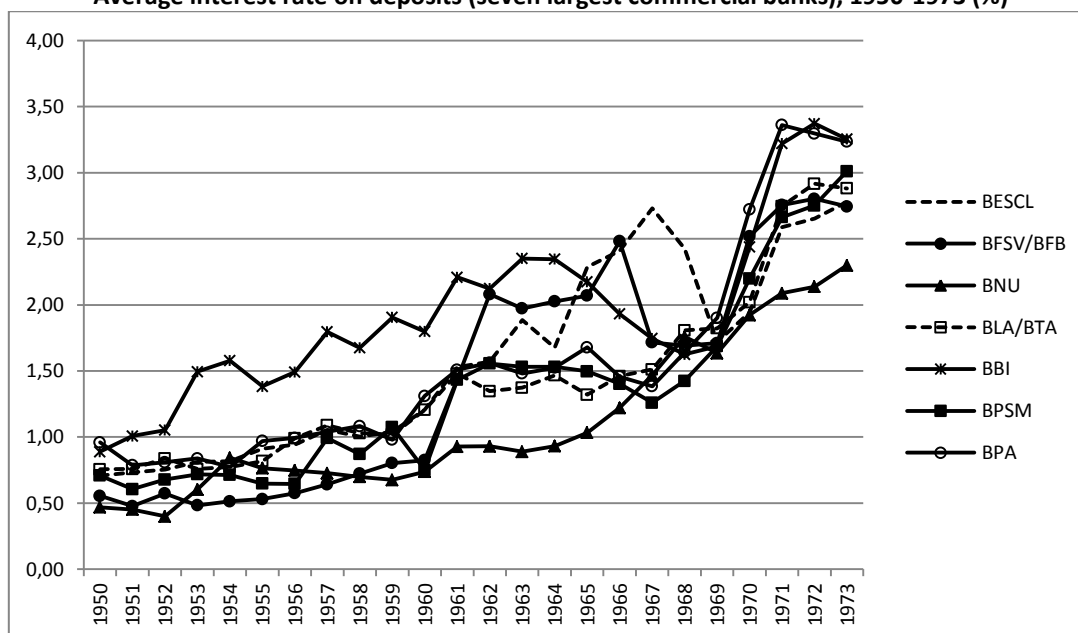
Table II
Cash reserves in Portuguese commercial banks, 1950-1973 (% of overall deposits)

Panel A								Panel A							
	BESCL	BFSV/ BFB	BNU	BLA/ BTA	BBI	BPSM	BPA	BESCL	BFSV/ BFB	BNU	BLA/ BTA	BBI	BPSM	BPA	
1950	38.01	26.30	31.28	30.21	27.60	31.60	29.16	23.04	15.94	18.96	18.31	16.73	19.15	17.67	
1951	33.66	27.17	34.16	26.29	30.45	26.37	23.53	19.76	15.95	20.05	15.43	17.87	15.47	13.81	
1952	25.24	27.66	32.68	25.22	27.32	26.90	31.58	14.21	15.57	18.40	14.20	15.38	15.14	17.78	
1953	36.29	33.55	36.94	27.39	27.68	30.03	25.32	20.78	19.21	21.15	15.68	15.85	17.19	14.50	
1954	32.77	29.89	46.67	22.70	24.06	23.05	28.67	19.20	17.51	27.35	13.30	14.10	13.51	16.80	
1955	25.62	26.74	43.77	20.84	22.66	23.01	30.87	15.50	16.18	26.48	12.61	13.71	13.92	18.68	
1956	29.35	30.54	41.07	20.83	20.86	23.84	23.98	18.12	18.85	25.35	12.86	12.88	14.72	14.80	
1957	24.59	26.92	34.34	20.46	21.18	21.49	20.93	14.57	15.94	20.34	12.12	12.55	12.73	12.40	
1958	26.49	26.94	31.05	19.46	20.25	21.33	22.73	16.08	16.48	18.85	11.82	12.30	12.95	13.80	
1959	22.23	26.97	25.73	19.20	16.15	22.54	20.40	14.03	17.02	16.24	12.12	10.19	14.23	12.88	
1960	17.05	16.92	21.38	18.59	13.38	23.13	15.68	12.72	12.62	15.95	13.87	9.99	17.26	11.70	
1961	14.75	16.67	26.01	15.39	14.29	22.75	17.32	11.77	13.29	20.75	12.28	11.40	18.14	13.81	
1962	16.39	15.42	24.54	13.91	13.88	17.79	17.39	16.39	15.42	24.54	13.91	13.88	17.79	17.39	
1963	15.81	13.23	19.20	14.79	12.21	17.89	16.91	15.81	13.23	19.20	14.79	12.21	17.89	16.91	
1964	14.15	17.02	17.28	16.27	13.14	17.53	14.07	14.15	17.02	17.28	16.27	13.14	17.53	14.07	
1965	11.61	16.17	16.81	15.69	11.25	16.59	12.68	11.61	16.17	16.81	15.69	11.25	16.59	12.68	
1966	12.70	15.88	14.30	17.37	13.48	18.32	17.79	12.70	15.88	14.30	17.37	13.48	18.32	17.79	
1967	15.49	13.45	13.31	20.69	18.35	16.78	15.83	15.49	13.45	13.31	20.69	18.35	16.78	15.83	
1968	14.47	11.06	10.92	20.20	18.46	19.34	18.68	14.47	11.06	10.92	20.20	18.46	19.34	18.68	
1969	13.85	16.53	12.33	20.06	19.12	18.13	17.85	13.85	16.53	12.33	20.06	19.12	18.13	17.85	
1970	14.87	16.00	17.35	20.08	17.61	15.76	13.40	14.87	16.00	17.35	20.08	17.61	15.76	13.40	
1971	13.45	19.74	17.08	20.10	14.99	13.73	13.43	13.45	19.74	17.08	20.10	14.99	13.73	13.43	
1972	14.03	16.31	16.44	18.38	18.07	17.44	13.75	14.03	16.31	17.48	18.38	18.07	17.44	13.75	

Note: Until 1959, commercial banks' annual reports separated only cash from deposits in other banks, in these being included the Bank of Portugal. Thus, in order to separate deposits at the Bank of Portugal from those in other banks, we had to use the Bank of Portugal's annual reports. The figures in these reports are not disaggregated by bank. To obtain the estimate presented here an aggregate ratio between deposits at the Bank of Portugal and in other banks was calculated. This ratio was then applied to the figures provided in the various banks' annual reports (the ones in Panel A). The assumption is that the proportion between deposits at the Bank of Portugal and deposits in other banks was, for each year, the same in all banks.

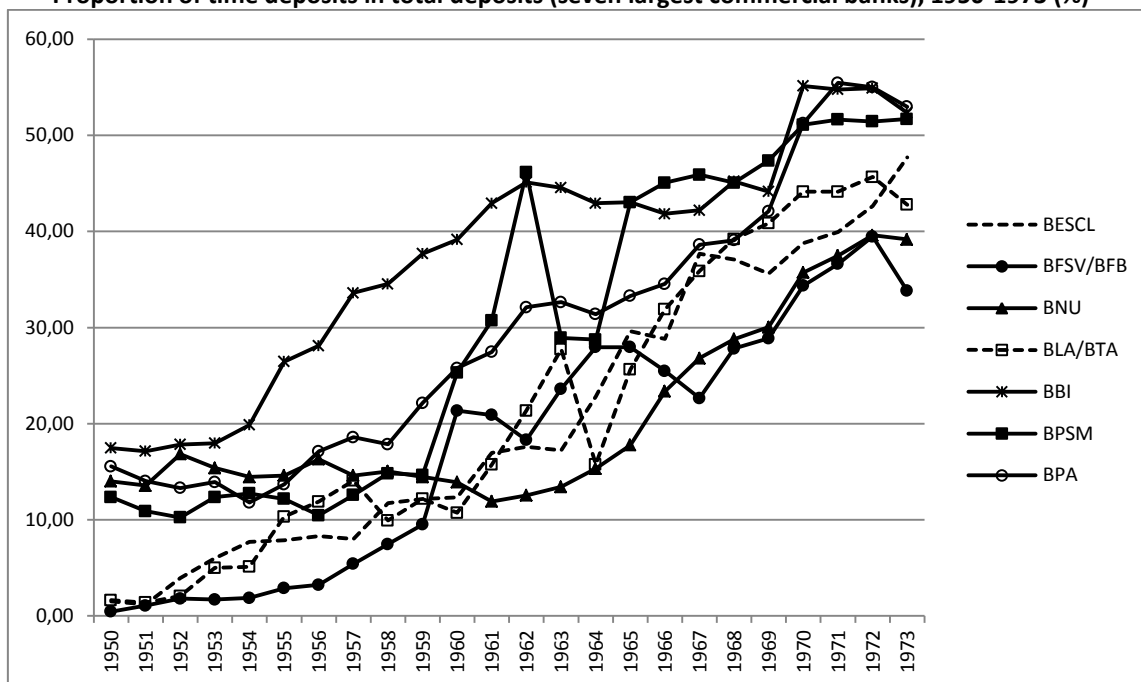
Sources: Banco Borges & Irmão (1950-1973), Banco Espírito Santo & Comercial de Lisboa (1950-1973), Banco Fonsecas, Santos & Viana (1950-1967), Banco Fonsecas & Burnay (1968-1973), Banco Lisboa & Açores (1950-1969), Banco Nacional Ultramarino (1950-1973), Banco Pinto & Sotto Mayor (1950-1973), Banco Português do Atlântico (1950-1973), Banco Totta & Açores (1970-1973).

Figure 6
Average interest rate on deposits (seven largest commercial banks), 1950-1973 (%)



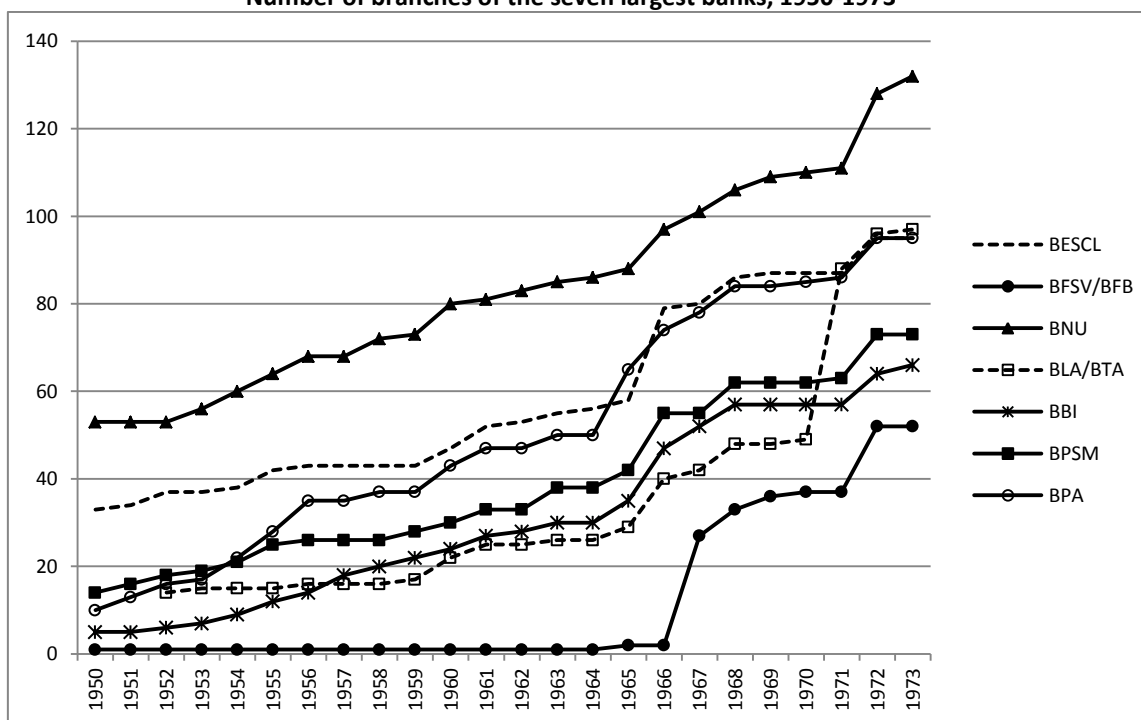
Sources: see Table II.

Figure 7
Proportion of time deposits in total deposits (seven largest commercial banks), 1950-1973 (%)



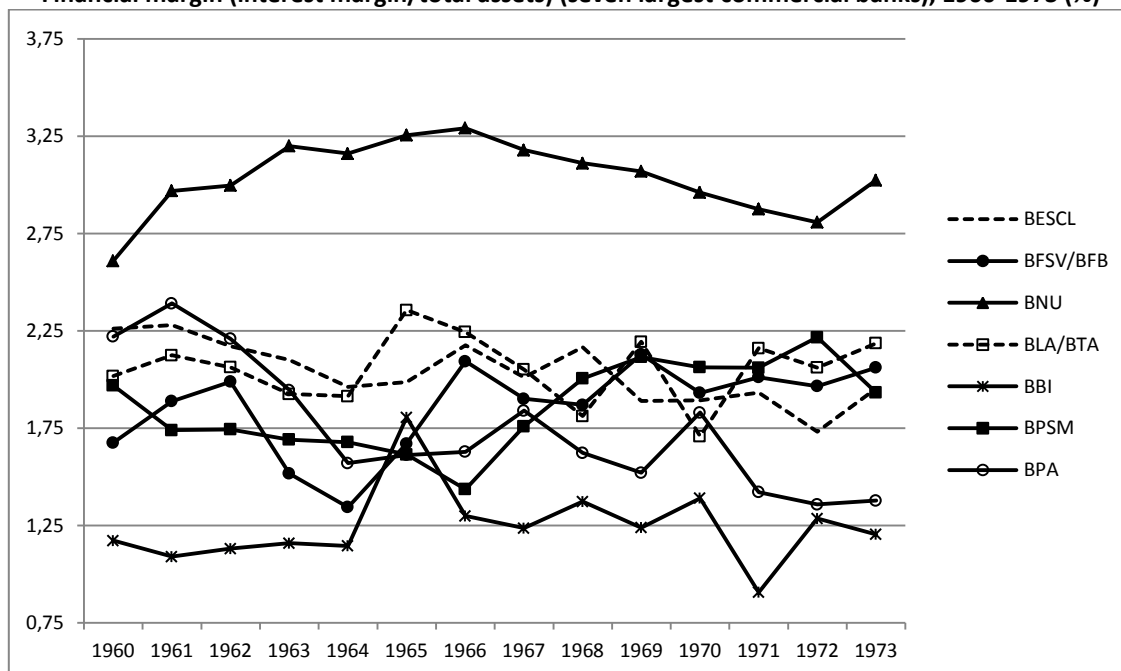
Source: see Table II

Figure 8
Number of branches of the seven largest banks, 1950-1973



Source: see Table II

Figure 9
Financial margin (interest margin/total assets) (seven largest commercial banks), 1960-1973 (%)



Sources: Banco Borges & Irmão (1960-1973), Banco Espírito Santo & Comercial de Lisboa (1960-1973), Banco Fonsecas, Santos & Viana (1960-1967), Banco Fonsecas & Burnay (1968-1973), Banco Lisboa & Açores (1960-1969), Banco Nacional Ultramarino (1960-1973), Banco Pinto & Sotto Mayor (1960-1973), Banco Português do Atlântico (1960-1973), Banco Totta & Açores (1970-1973).

Table III
Financial margin (interest margin/total assets)
(commercial banks), various countries, 1965-1973 (%)

	1965	1970	1973
Belgium	1.71**	1.44	0.54
Canada	2.12*	2.06	2.16
Denmark	3.89*	4.65	4.91
Finland	2.47	2.49	2.67
Germany	2.19***	2.24	1.83
Italy	2.82	2.72	2.50
Netherlands	2.46	2.42	2.50
Norway	2.72	2.97	3.00
Spain	2.79***	2.73	2.71
Sweden	2.48***	2.19	2.36
USA	2.71	3.19	2.76

*1966

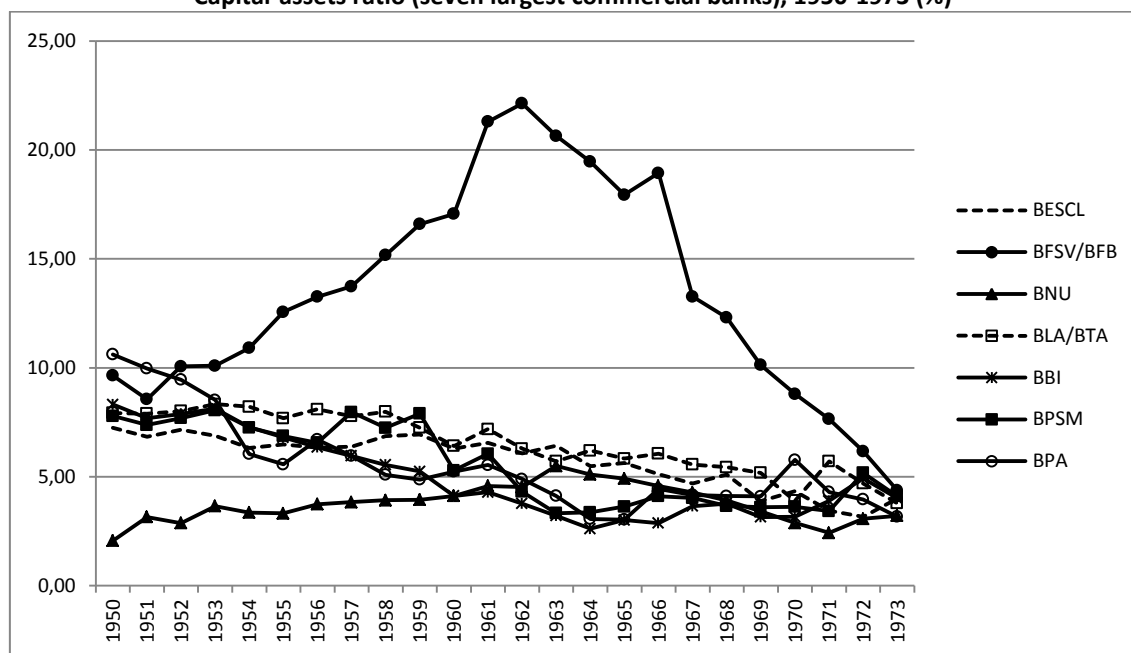
**1967

***1968

Australia – trading banks; Canada – chartered banks; Denmark, Finland, and Italy – all banks; USA – FDIC insured; all other countries – commercial banks

Source: Revell (1980)

Figure 10
Capital-assets ratio (seven largest commercial banks), 1950-1973 (%)



Source: see Table II

Table IV
Capital-assets ratio, Portugal and various countries (commercial banks), 1965-1973 (%)

	1965	1970	1973
Australia	5.03	5.55	4.23
Belgium	5.14*	4.54	3.39
Canada	4.55	3.25	2.61
Denmark	9.92*	10.18	9.83
Finland	6.76	4.76	6.44
France	3.80	2.62	2.54
Germany	3.55**	3.55	3.48
Italy	2.05	2.12	1.71
Netherlands	-	5.65***	4.94
Norway	6.26	6.41	5.70
Spain	6.78	8.27	7.55
Sweden	-	6.54	5.43
USA	8.00	6.58	5.77
Portugal	4.59	4.68	5.32

*1966

**1968

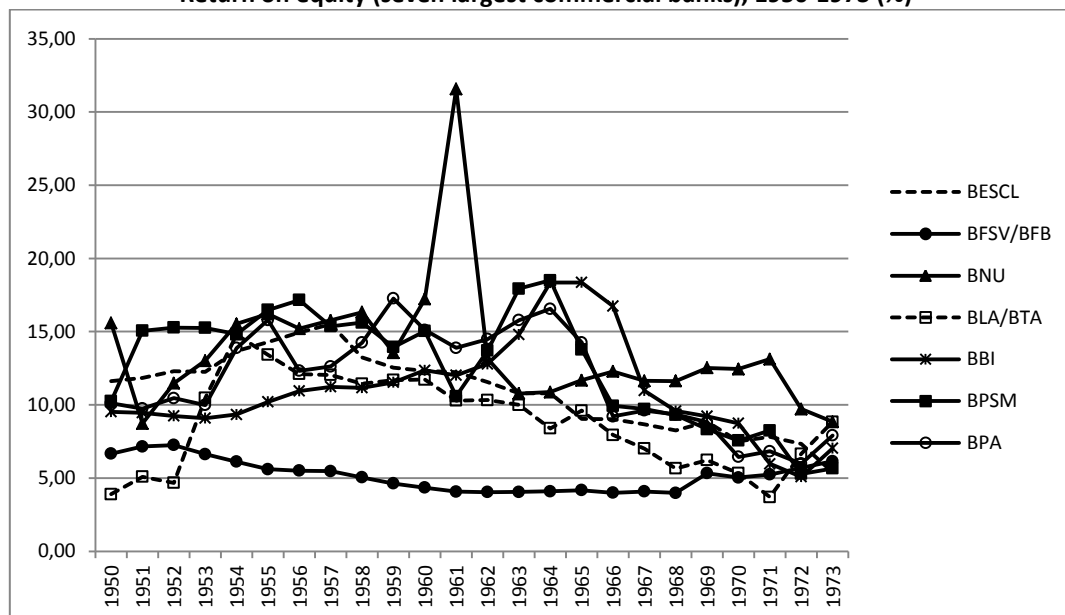
***1971

Notes: assets are not weighted by risk

Australia – trading banks; Canada – chartered banks; Denmark, Finland, France, and Italy – all banks; USA – FDIC insured; all other countries – commercial banks

Sources: for Portugal – INEa; for all other countries – Revell (1980)

Figure 11
Return on equity (seven largest commercial banks), 1950-1973 (%)



Source: see Table II

Table V
Return on equity, Portugal and various countries (commercial banks), 1965-1973 (%)

	1965	1970	1973
Australia	12.60	17.32	20.04
Belgium	10.70*	11.06	10.79
Canada	18.38	33.05	37.27
Denmark	14.91*	15.57	15.30
Finland	14.50	12.43	9.55
France	7.96	11.78	18.34
Germany	19.21**	12.87	9.47
Italy	40.34	38.56	37.85
Netherlands	-	15.60***	14.18
Norway	14.25	14.39	12.49
Spain	16.26**	18.33	20.72
Sweden	-	7.82	9.40
USA	8.38	12.87	12.93
Portugal	16.51	13.57	10.91

*1966

**1968

***1971

Australia – trading banks; Canada – chartered banks; Denmark, Finland, France, and Italy – all banks; USA – FDIC insured; all other countries – commercial banks

Sources: see Table IV

Figure 12
Return on assets (seven largest commercial banks), 1950-1973 (%)

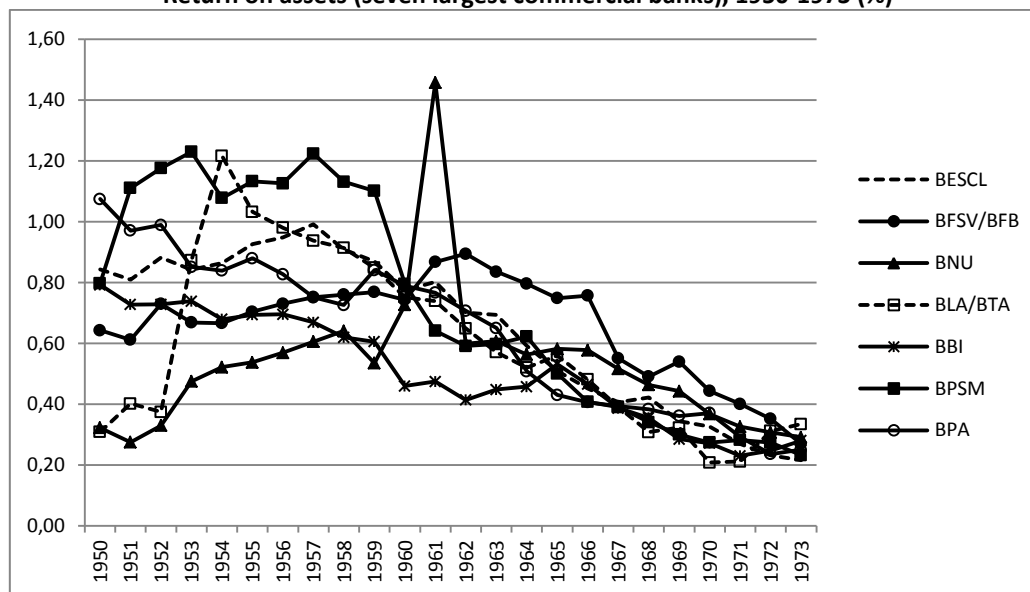


Table VI
Return on assets, Portugal and various countries (commercial banks), 1965-1973

	1965	1970	1973
Australia	0.65	1.00	0.95
Belgium	0.55*	0.54	0.40
Canada	0.88	1.14	1.10
Denmark	1.58**	1.63	1.61
Finland	0.98	0.59	0.62
France	0.32	0.39	0.51
Germany	1.01***	0.62	0.45
Italy	0.83	0.82	0.65
Netherlands	1.28	0.89	0.79
Norway	0.94	0.96	0.77
Spain	1.58***	1.63	1.76
Sweden	0.78***	0.52	0.55
USA	0.70	0.89	0.80
Portugal	0.46	0.33	0.31

*1967

**1966

***1968

Notes: Australia – trading banks; Canada – chartered banks; Denmark, Finland, and France – all banks; USA – FDIC insured; all other countries – commercial banks

Sources: see Table IV

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Notes

¹ Translation by the author.

² Translation by the author.

³ Translation by the author.

⁴ We should also note that this measure was 0.10 in Spain in 1950 (Pueyo, 2003), 0.16 in Italy in 1930 (Ciocca and Biscaini Cotula, 1979), and of a similar level in England and Wales in 1920 (Capie and Rodrik-Bali, 1982).

⁵ An important note should be made here: cash reserves are calculated as a proportion of all sorts of deposits (demand and time). This is important because most of the considerations normally made in the literature about excess reserves refer only to cash reserves as a proportion of demand deposits. But, as Figure 7 shows, demand deposits became an increasingly smaller proportion of overall deposits in this period, and the legal requirements for time deposits were much less stringent than those for demand deposits.

⁶ Translation by the author.

⁷ Translation by the author.

⁸ All translations in this paragraph are of the author's responsibility.